

# Commercialization of small holder farming in Assam

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## ABSTRACT

Commercialization of agriculture is an activity where farmers produce principally for sale in far off markets, rather than to fulfil their demand for food or to sell in local or nearby markets. Number of different stimuli at different times is responsible for agricultural commercialisation. In Assam about 86 % farmers belong to the small and marginal category. These groups should be oriented towards commercialization of their farms for improving their standard of living. The present study attempted to measure the level of commercialization among the small farmers in Nagaon district of Assam. Multistage random sampling method was used to select the respondents. Household commercialization index was used to measure the level of commercialization. The study revealed that the level of commercialization ranged from 63.3% to 74 %. It was reported that the higher farm size and access to market encouraged the farmers to go for higher level of commercialization.

**Keywords:** Small holders, commercialization index, farm size, market access, Assam

Commercialization of agriculture which is defined as a process where peasants start producing primarily for sale in distant markets, rather than to meet their own need for food or to sell in local markets has taken place at different times in response to different stimuli (Roy, 2007). Smallholder farming has a pivotal role in transfiguring agriculture from sustenance to market-

driven production or profit oriented agricultural production. In Assam, agriculture has continued to make a contribution to employment and food production. The average operational holding is 1.10 hectares only and more than 85% of farmer family is small and marginal farmers with an average holding of only 0.63 hectares but in a scattered manner (Economic Survey, 2011). Small holder farming is key to livelihoods of many rural households in the state. Commercialisation of the small holders of the state is expected to increase the export potential of agricultural products of Assam. This present study attempts to examine the level of commercialization of small holders of Nagaon district of Assam during 2015.

Access this article online	
<b>Publisher</b>	Website: <a href="http://www.ndpublisher.in">http://www.ndpublisher.in</a>
	DOI: 10.5958/0976-4666.2016.00043.7

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## METHODOLOGY

The present study was based on primary data collected from the smallholder farmers of Nagaon, the district with the highest number of smallholder farmers in Assam. Four villages from two development block of the district were randomly selected, and a list of small holder farmers was prepared and out of that, 10% farmers were randomly selected that resulted in 90 farmers for the present study. They were then categorized into three size groups of farmers based on the size of holding viz. Group I (1.00- 1.13 ha), Group II (1.13- 1.20 ha) and group III (1.20- 1.40 ha). Household-specific level of commercialization measure as suggested by Govereh *et al.* (1999) and Strasberg *et al.* (1999) was used to measure household commercialization index (HCI). It shows the relationship of total worth of all crop sales per household and the total worth of all crop production. It is a ratio of gross value of all crop sales per household per year to the gross value of all crop production. The convenience of this index is that it gives the level of commercialization for every household individually. The closer the index is to 100, the higher is the degree of commercialization. To measure the level of commercialisation, crops viz. rice, *Kharif* and *Rabi* vegetables and mustard were considered. *Kharif* vegetables included ridge gourd, sponge gourd, bottle gourd, and ash gourd. *Rabi* vegetables include tomato, brinjal, cabbage, cauliflower, chilli, pumpkin, *bhindi*. Gross value of all crop production represented the money value of all crops produced in the farm whereas the gross value of all crop sales per household per year represented the money value of the produce sold in the market by that particular farm. For the convenience of the study, the production, production value and sales value of both *Kharif* and *Rabi* vegetables were calculated separately and then clubbed together.

## RESULTS AND DISCUSSIONS

The gross value of all crop production and gross value of all crop sales per household per year are presented for different groups of farmers in Table 1 and Table 2.

From the table, it could be seen the production value of rice in Group I is ₹ 24,211.87 which increased to ₹ 29,385.05 in Group II and which further increased to ₹ 34467.30. In vegetables, the value increased from ₹ 76,360.52 in Group

I to ₹ 92,036.18 in Group II and increased to ₹ 10,4655.33 in Group III. Similarly, in mustard, the production value in Group I was ₹ 1744.35, ₹ 2217 in Group II and ₹ 2663.38 in Group III. In Group I, the largest contribution of ₹ 76,630.52 to the total production value was made by vegetables (75.63%). Rice contributed 23.66% (₹ 24,211.87) to the total value followed by mustard (1.70%). In Group II, vegetables contributed 75.43%, rice 23.76% and mustard 1.79% to the total value. In the third Group, vegetables contributed about 73.81% to the total value, rice and mustard had a share of 24.30% and 1.8%, respectively.

**Table 1:** Total production value (₹) of crops in various size Groups

Group	Rice	Vegetables	Mustard	Total
Group I	24211.87 (23.66)	76360.52 (75.63)	1744.35 (1.70)	102316.7 (100)
Group II	29385.05 (23.76)	92036.18 (75.43)	2217 (1.79)	123638.2 (100)
Group III	34467.30 (24.30)	104655.33 (73.81)	2663.38 (1.8)	141786 (100)

**Table 2:** Total sale values (₹) of crops in various size Groups

Group	Rice	Vegetables	Mustard	Total
Group I	13255.90 (20.56)	50172.06 (77.83)	1031.56 (1.60)	64459.52 (100)
Group II	17329.06 (20.61)	65382.50 (77.76)	1362.42 (1.62)	84073.98 (100)
Group III	22001.04 (20.96)	81135.52 (77.32)	1785.08 (1.70)	104921.64 (100)

It was observed from the table that sales value of rice gradually increased down the Groups from ₹ 13,255.90 in Group I to ₹ 17,329.06 in group II and ₹ 22,001.04 in Group III. The sales value of vegetables in Group III was the highest (₹ 81,135.52) followed by sales value of vegetables in Group II (₹ 65,382.50) and in Group I (₹ 50,172.06). The sales value of Mustard was the highest (₹ 1785.08) in Group III. The sales value of mustard was the lowest in Group I (₹ 1031.56). It was also found out that to the total sales value of ₹ 63,653.00 in Group I, rice contributed 20.56%, vegetables contributed 77.83% and mustard contributed 1.60%. In Group II, Rice had a share of 20.61%; vegetables had a share of 77.76%

and Mustard had a share of 1.62% in total sales value (₹ 84,073.98). In the total value of ₹ 104921.64, in Group III, rice contributed about 20.96% (₹ 22,001.4), vegetables shared 77.32% (₹ 81,135.52), and mustard had a minimal share of 1.70% (₹ 1785).

### Level of commercialization in various farm sizes

To measure the level of commercialization, gross value of all crop sales per household per year to the gross value of all crop production was worked out and is presented in Table 3.

**Table 3:** Level of commercialisation according to groups

Groups	Production value (₹)	Sales value (₹)	Level of commercialization
Group I	1,01,038.00	63653.00	63
Group II	1,22,142.00	83056.56	68
Group III	1,40,000.00	103600.00	74

It is seen from Table 3 that in the first Group, the production value stood at ₹ 10,103,8 and sales value was around ₹ 63,653. The level of commercialization, which is measured as the ratio of total sales value to the total production value, was found to be 63% for the Group I. In Group II, production value and sales value were ₹ 1,22,142.00 and ₹ 83,056.56 respectively. The level of commercialization in this group was measured to be 68%. In Group III, the production and sales value were ₹ 1,40,000.00 and ₹ 1,03,600.00 and the level of commercialization was found to be 74%. It was seen that among all the groups, the level of commercialization was the highest for the Group III. It may be inferred that with an increase in land size, production and sales increases, which resulted in increased level of commercialization. The level of commercialization among the sampled population was neither low nor very high which indicated that there was still a scope for further improvement in commercialization aspects. Household commercialization index implies that the average percentage level of commercialization of smallholder farmers in Bangladesh is 57%, which indicates the moderate level of commercialization (Osmani, 2015). Another finding showed that the degree of commercialization in Nigeria is moderately high (about 60.40%). On an average, households

sold about 56.10%, 66.60% and 58.50% of their total production (in grain equivalent terms) for the Southern, Central, and Northern zones respectively (Ele, 2013). The average farmer sold almost half (49.7%) of his or her crop production (in value terms). The level of commercialization, however, varies extensively across sampled households, which indicates a correspondingly extensive variation in the possibilities and limitations for further commercialization.

### CONCLUSION

This study was initiated to investigate the level of commercialization of smallholder farmers in the study area. It is estimated by the household commercialization index (HCI), and it is seen that the average level of commercialization is 68.8%. However, the level of commercialization differs from household to household, which signifies a complementary contrast in the ability and restrictions for more commercialization. For small farmers, agriculture has always been a challenging business against climate change, restricted financing choices, price shocks, and insufficient availability of nutritious and healthy food. Small farmers can well adapt their livelihood plans to these threats but need a contributory policy status. With a view to bring a profitable and useful impact on the income of smallholder farmers, policies need to focus at promoting the development in agricultural production and productivity and advocating agricultural commercialization in an unceasing way.

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